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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,853	06/26/2003	William P. Nixon III	A2, 128	5852
7590	04/13/2004		EXAMINER	
Larry W. McKenzie Walker, McKenzie & Walker, P.C. Suite 434 6363 Poplar Avenue Memphis, TN 38119-4896			FELTON, AILEEN BAKER	
			ART UNIT	PAPER NUMBER
			3641	
DATE MAILED: 04/13/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/606,853	NIXON, WILLIAM P.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Aileen B Felton	3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 26 June 2003.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-24 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                                              |                                                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                         | Paper No(s)/Mail Date. _____ .                                              |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/26/03</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|                                                                                                                                              | 6) <input type="checkbox"/> Other: _____ .                                  |

## DETAILED ACTION

### ***Specification***

1. The disclosure is objected to because of the following informalities: On page 13, the properties of aluminum flake are listed, however, the surface area says "16 micron Surface area" and the next line says "1.06 square meters per sq cm". These appear to be inconsistent with the claims and also with the generally accepted units of surface area.

Appropriate correction is required.

### ***Claim Objections***

2. Claim 17 is objected to because of the following informalities: In line 2, it is recited "0.5" this should be "0.5". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-3, 10, 11, 13, 15-18, 20, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roberts(3,747,679) in view of Machacek(4,115,165) and Alm et al(4,330,346).

Roberts discloses a composition that comprises 66 % nitromethane, 12 % of aluminum powder of size less than 15 microns, and 1 % of Cab-O-Sil (amorphous

fumed silica) (see example 1). The ingredients are mixed while stirring. Roberts discloses using an additional thickening or gelling agent. Roberts also discloses that a mixture of nitromethane and nitroethane can be used (col. 4, lines 45-60). The surface area is an inherent property of the aluminum that is disclosed. Where a product appears to be the same or only slightly different, the properties recited appear to be inherent. The Office does not have testing facilities to determine such. The burden falls on applicant to show that the prior art products do not necessarily or inherently possess the claimed properties. In re Thorpe, 777 F.2d 695, 697; 227 USPQ 964, 966; In re Fitzgerald, 619 F.2d 67, 70; 205 USPQ 594, 596; In re Best, 562 F.2d 1252, 1255; 195 USPQ 430, 433-434; In re Brown, 459 F.2d 531; 173 USPQ 685. The coating of the aluminum with stearic acid is not disclosed.

Machacek teaches that it is known to coat aluminum with stearic acid to impart a sensitizing effect in water gel explosives and further indicates that the greater surface area of the aluminum in combination with the coating creates a very effective sensitizing agent (col. 1, lines 30-60).

Alm et al teaches powdered aluminum products with stearic acid coatings that vary from .2-2.5 %.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the aluminum as taught by Machacek with the composition of Roberts since Machacek teaches that is a very good sensitizer and that is the purpose of the aluminum disclosed by Roberts. Machacek does not teach how much stearic acid is used but Alm et al teaches that there are various commercially available

coated aluminum products with various amounts of stearic acid coating. It would be obvious to use any of these coated aluminum products with the composition of Roberts. Also, there is no indication what the amount of stearic acid is in Machacek and it is likely a similar amount. It would also be obvious to use mixtures of nitroethane and nitromethane since Roberts suggests that they can be used.

5. Claims 4-9, 19, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roberts(3,747,679) in view of Machacek(4,115,165) and Alm et al(4,330,346) as applied to claims 1-3, 10, 11, 13, 15-18, 20, 22 above, and further in view of Anderson (6,405,627).

Anderson teaches the use of a bottle with a screw on top or a plastic zip bag as a vessel for holding a mixture of nitromethane, aluminum, and fumed silica (col. 2, lines 20-45 and claim 12).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the vessels as taught by Anderson with the compositions disclosed and taught by Roberts and Machacek since the vessels of Anderson are used to hold and mix similar nitromethane, aluminum and fumed silica compositions.

6. Claims 1, 3, 10-12, 16, 18, 20, 21 rejected under 35 U.S.C. 103(a) as being unpatentable over Mullay (4,097,316) in view of Machacek(4,115,165) and Alm et al(4,330,346).

Mullay discloses an explosive composition that comprises 3-30 % of mixtures of nitromethane and nitroethane (col. 4, lines 35-50), up to 15 % of powdered or atomized

aluminum (col. 5, lines 5-20), and thickening agents such as methacrylate polymers (col. 2, lines 1-7), specifically methyl-methacrylate (ex. 5).

Machacek teaches that it is known to coat aluminum with stearic acid to impart a sensitizing effect in water gel explosives and further indicates that the greater surface area of the aluminum in combination with the coating creates a very effective sensitizing agent (col. 1, lines 30-60).

Alm et al teaches powdered aluminum products with stearic acid coatings that vary from .2-2.5 %.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the aluminum as taught by Machacek with the composition of Mullay since Machacek teaches that is a very good sensitizer and that is the purpose of the aluminum disclosed by Mullay. Machacek does not teach how much stearic acid is used but Alm et al teaches that there are various commercially available coated aluminum products with various amounts of stearic acid coating. It would be obvious to use any of these coated aluminum products with the composition of Mullay. Also, there is no indication what the amount of stearic acid is in Machacek and it is likely a similar amount. It would also be obvious to use mixtures of nitroethane and nitromethane since Mullay suggests that they can be used.

7. Claims 14 and 23 rejected under 35 U.S.C. 103(a) as being unpatentable over Roberts(3,747,679) in view of Machacek(4,115,165) and Alm et al(4,330,346) as applied to claims 1-3, 10, 11, 13, 15-18, 20, 22 above, and further in view of Mullay (4,097,316).

Mullay teaches an explosive composition that comprises 3-30 % of mixtures of nitromethane and nitroethane (col. 4, lines 35-50), up to 15 % of powdered or atomized aluminum (col. 5, lines 5-20), and thickening agents such as methacrylate polymers (col. 2, lines 1-7), specifically methyl-methacrylate (ex. 5).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the thickener as taught by Mullay in the composition of Roberts since Roberts discloses that additional thickeners can be used.

***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aileen Felton whose telephone number is (703) 306-5751. The examiner can normally be reached on Monday through Friday from 6:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone, can be reached on (703) 306-4198.

The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7687. The fax number for submissions before a final action is (703) 872-9326, for after final submissions is (703) 872-9327, and customer service is (703) 872-9325.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

Application/Control Number: 10/606,853  
Art Unit: 3641

Page 7

*Aileen B. Felton*  
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